Comments on the Draft Criteria for Selection of PMRI Standards

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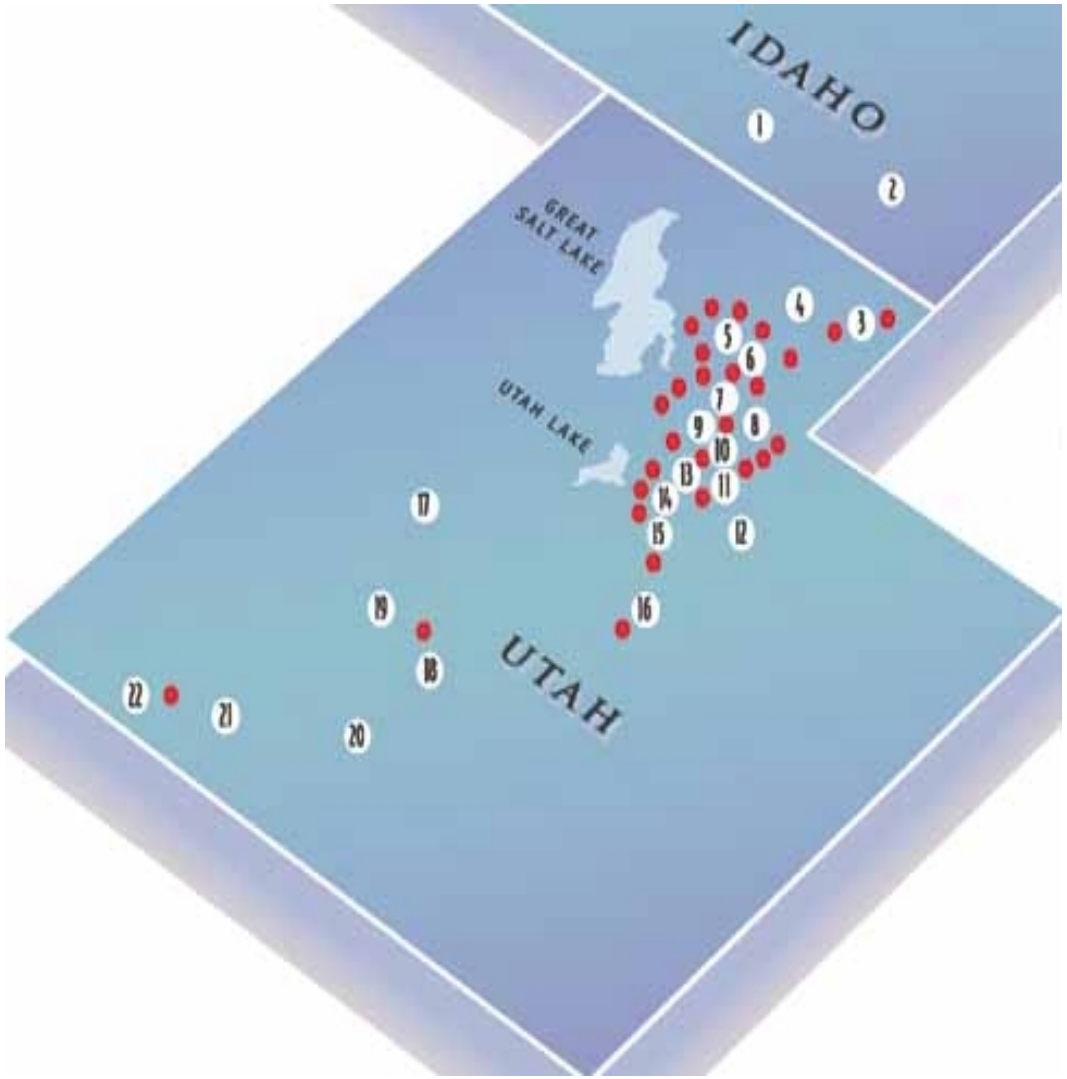
Who am I?

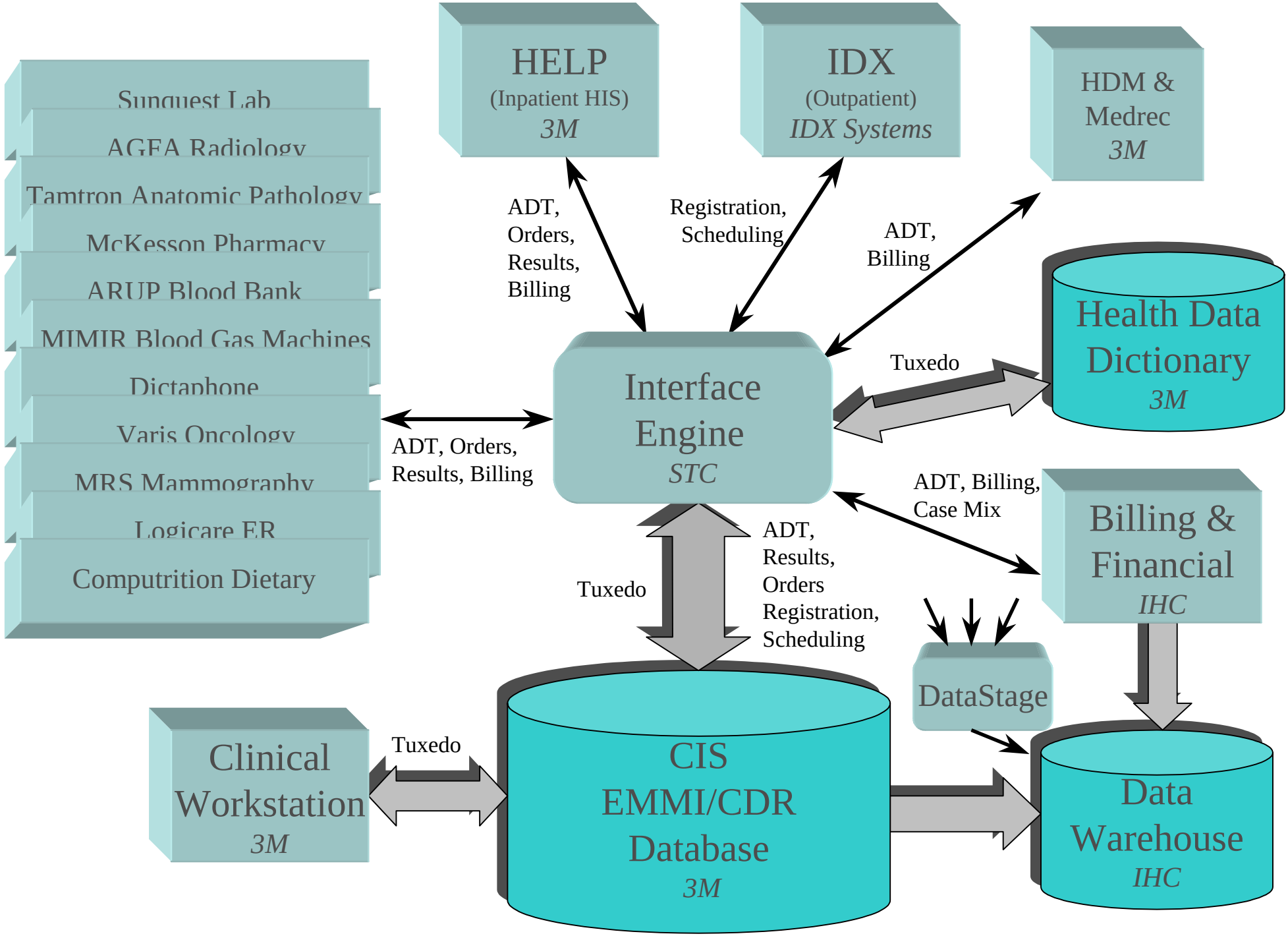
- Clinical pathologist by training
- I work for Intermountain Health Care
  - Clinical System Architect
  - Manager of the Interface Team
  - Manager of the Healthcare Data Dictionary Team
- Other activities
  - Chair of Health Level Seven (HL7)
  - Professor (Clinical), University of Utah
  - Co-chair of the LOINC (Logical Observation Identifier Names and Codes) Committee
  - Advisor to the SNOMED Editorial Board

Intermountain Health Care (IHC)



- Not for profit corporation
- 22 Hospitals
  - 500->25 beds
- 24 Clinics
- 14 Urgent Care Centers
- Health Plans (Insurance)
- Physician's Division (~400 employed physicians)

Clinical Integration



Statistical Profile

- HDD (Healthcare Data Dictionary)
  - 538,774 Concepts
  - 4,424,254 Relationships
  - 3,496,281 Representations
- Interfaces
  - 60+ different interfaces
    - HL7
    - X12
    - DICOM
  - 500+ interface instances
  - 900,000+ transactions per day

Introductory Comments (from Wes Rishel)

- The benefits to society of interoperable national standards do not by themselves justify investments by individual organizations to restructure their systems and procedures to meet the standards.
- Therefore, it requires an externally-imposed mandate to allow individual organizations to override their own financial and structural constraints and do what benefits society.
- The impact of HIPAA will further verify the principle of relying on modest advances of the existing standards … rather than creating standards de novo.

Extending HIPAA to clinical standards

- The stakes are higher
- The benefits to society of a fine-grained, structured standard for exchange of clinical data are profound
- Standards offer the potential for rational rationing – distributing medical expenditures based on facts rather than political lobbying or Madison Avenue
- The costs to implement will be substantial
  - Development of implementation guides
  - Broad scope and complexity of clinical data
  - Organizations without an EMR will need to implement them
  - Vendors will require time to become compliant

Introductory Comments (from Wes Rishel)

- The ***benefits*** to society of a fine-grained, structured standard for exchange of clinical data are profound
- The ***costs*** to implement fine-grained structured data exchange standards will be substantial
- The benefits to society of interoperable national standards ***do not by themselves justify*** investments by individual organizations to restructure their systems and procedures to meet the standards
- Therefore, it requires an externally-imposed ***mandate*** to allow individual organizations to override their own financial and structural constraints and do what benefits society
- Success will rely on modest advances of the ***existing standards*** rather than creating standards de novo
- It is therefore critical that the regulations that come about to standardize clinical data be ***evolutionary*** and provide time for organizations to achieve returns on their investment as they pass through the evolutionary stages of adoption

Comments on the criteria for selection of standards

- Improve the efficiency and effectiveness of the health care
  - Unambiguous sharing of data and information (data comparability).
  - Data security and integrity.
  - Interoperability – this is the goal, but is extremely difficult to completely achieve.
- Standards that work
  - ***Only*** select standards that are implemented and working in a wide variety of ***production*** clinical environments
- Cost effective: select standards that will be the least costly to implement
  - Market acceptance, use what people are already using
  - Public domain and commercial tools available for implementers
  - Education and training available

Comments on the criteria for selection of standards

- Sustainable standards
  - Stable organizational support
  - Follow ANSI open consensus process rules
- Manage change:
  - Flexibility to respond to new requirements
  - Timely corrections and enhancements
  - Preserve business knowledge in the face of rapidly changing technology

Comments on questions for SDOs

- The proposed questions are appropriate
- Suggest that the following questions be added:
  - What public domain tools are available for assisting in implementing the standard?
  - What commercial tools are available for assisting in implementing the standard?
  - What kinds of training materials, tutorials, and other kinds of education about the standard are available?
    - Technical training – what is it, how does it work
    - Practical training – how do you really implement
  - To what extent can the standard serve the needs of veterinary medicine?

Comments on questions for SDOs

- Provide guidance on the number and granularity of questionnaires to be submitted
- Suggested approach
  - One questionnaire for each transaction domain
  - Use the proposed transaction domains as a guide
  - For example, HL7 would submit questionnaires for
    - ADT
    - Standard (non medication) Orders
    - Standard (non medication) Results
    - Medication Orders
    - Etc.
- May result in some redundancy, but answers will be more accurate and specific to the content

Priority of proposed transaction list

- ADT
- “Standard” orders (non medication): clinical laboratory, anatomic pathology, radiology, etc.
- “Standard” results (non medication): clinical laboratory, anatomic pathology, radiology
- Inpatient medication orders to pharmacy systems
- Clinical documents
- Chief complaint, problems, diagnoses (new)
- Images
- Visual integration (new)
- Data from bedside instruments and monitoring systems
- Orders for outpatient medications to pharmacy systems
- Procedure scheduling (new)
- Charge capture information to billing systems

Additional comments: Implementation guides

- Immunizations (already done)
- Laboratory orders and results
- Radiology orders and results
- Medication orders
- Microbiology culture results (work in progress)
- Others
  - Ancillary services EKG, EEG, Dietary

Implementation strategy

- Initial implementations
  - Reward those who supply data according to the standards
    - Payment per case or per transaction
  - Set a plan for transition after success in production systems
    - A date for beginning transition, and an end date by which all systems must be compliant
  - Allow time to develop implementation guides, technical training, practical training
  - Start in best defined areas
    - Laboratory
    - Radiology
    - Pharmacy
- Mandate the standards after the initial implementations have been proven effective

Where to implement (in priority order)

- Reporting of clinical data to third party payers (as currently proposed for HIPAA claims attachments)
- Reporting to governmental departments, offices, and agencies
  - Infectious disease reporting to state and federal agencies
  - Immunization information to state and federal agencies
  - Tumor registries
  - FDA for adverse drug events
  - FDA for clinical trials information
  - HCFA chart review
- Reporting of veterinary data to governmental departments and agencies

Where to implement (continued)

- Reporting of clinical trials data to private companies
- Reporting to national professional databases:
  - Cardiology
    - Myocardial infarctions
    - Open heart surgery
  - Mother's and newborns
    - Prenatal care
    - Neonatal care
    - Birth defects
  - Endoscopy
  - Others
- Data exchange between health care enterprises
- Data exchange within a single health care enterprise

Planned evolution

- ***New versions*** of standards, and ***new standards*** will be needed
- There should be a well-defined process for prototyping and implementing the next generation of standards in production systems before general adoption
- Mandate use after proven success